

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

## UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte KAR W. YUNG and DONALD C.D. CHANG

MAILED

MAY 11 2006

U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 2005-2541  
Application No. 08/949,988

ON BRIEF

Before FRANKFORT, CRAWFORD and BAHR, Administrative Patent Judges.

BAHR, Administrative Patent Judge.

### DECISION ON APPEAL

This is a decision on appeal from the examiner's rejection of claims 1-21.

We REVERSE.

BACKGROUND

The appellants' invention relates to a method and system for maximizing satellite constellation coverage at predetermined local times for a set of predetermined geographic locations. A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

***The Applied Prior Art***

Westerlund	4,776,540	Oct. 11, 1988
Draim	4,809,935	Mar. 7, 1989

***The Rejection***

Claims 1-21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Draim in view of Westerlund.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding this appeal, we make reference to the final rejection (mailed September 5, 2001) and examiner's answer (mailed January 2, 2002) for the examiner's complete reasoning in support of the rejection and to the appellants' brief (filed December 3, 2001) and reply brief (filed February 8, 2002) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art, and to the respective positions articulated by the appellants and the examiner. For the reasons cited on pages 6-8 of the appellants' brief and pages 2-4 of the appellants' reply brief, we cannot sustain the examiner's rejection.

Specifically, neither Draim nor Westerlund teaches or suggests modifying the trajectories of satellites within a satellite constellation, as set forth in claims 1-19, or tilting each of a plurality of satellites within a satellite constellation, as set forth in claims 20 and 21, in order to obtain a second coverage area, which maximizes coverage by the constellation at predetermined local peak times for one or more predetermined geographical locations, as called for in claims 1-21. While Draim's satellite constellations may in fact achieve less than complete continuous global coverage, as urged by the examiner on page 3 of the answer, Draim describes the 3-satellite constellation coverage, when optimized according to Draim's teachings, as continuous global coverage and, in any event, gives no hint or suggestion to modify such optimized constellation to provide maximum coverage to predetermined geographic areas at predetermined local peak times. Westerlund likewise provides no such teaching or suggestion.

Westerlund is directed to a method of re-orienting the spin-axis (not the trajectory or path) of a satellite to compensate for excursions from the predetermined orbit, which excursions result from various phenomena, so that the beam from the antenna of the satellite will hit its intended target 66 on earth despite the excursion. While Westerlund may have provided one of ordinary skill in the art with ample motivation to re-orient the satellites of Draim's continuous global coverage constellation to compensate for such excursions, neither Westerlund nor Draim, alone or in combination, teaches or suggests tilting either each of the satellites or their trajectories to obtain a second coverage so as to maximize coverage at a particular geographic location during predetermined local peak times.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-21 is REVERSED.

REVERSED

*Charles E. Frankfort*  
CHARLES E. FRANKFORT  
Administrative Patent Judge

*M. E. Crawford*  
MURRIEL E. CRAWFORD  
Administrative Patent Judge

*Jennifer D. Bahr*  
JENNIFER D. BAHR  
Administrative Patent Judge

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